

REMARKS

The indication that claims 5 and 10 include patentable subject matter is acknowledged with thanks.

Claims 1 and 6 were rejected as anticipated by O'NEIL et al. 6,085,287. Claims 2 and 7 were rejected as unpatentable over BALA 6,351,844 in view of O'NEIL et al. Claims 2-4 and 7-9 were rejected as unpatentable over RYAN 5,367,656 in view of O'NEIL et al. The claims have been amended and reconsideration and withdrawal of the rejections are respectfully requested.

A feature of the structure of the present invention as defined by the above-amended claims 1, 3, 4 and 11 lies in a second element (e.g., an I/O process execution unit) which executes tasks as a first priority unless the number of the tasks executed as the first priority exceeds a first number, and executes a task as a second priority if the number of the tasks executed as the first priority exceeds the first number. A feature of the method of the present invention as defined by the above-amended claims 6, 8, 9 and 14 lies in executing tasks as a first priority unless the number of the tasks executed as the first priority exceeds the first number; and executing a task as a second priority if the number of the tasks executed as the first priority exceeds the first number, wherein the first priority is higher than the second priority. With such a second element and execution steps, the number of the executing steps is

constrained. Therefore, the frequency of paging out in the processor cache memory decreases.

By contrast, O'NEIL et al. disclose a method and an apparatus for enhancing a disk cache process by dynamically sizing prefetch data associated with read requests based upon the current cache hit rate. O'NEIL et al., however, has nothing to do with a priority of tasks. Therefore, O'NEIL et al. neither teaches nor suggests the above-described second element and the executing steps of the present invention.

Moreover, RYAN discloses controlling cache predictive prefetching based on a cache hit ratio trend. In RYAN, when the hit ratio is below the threshold, a miss prediction is enabled. The Official Action asserts that a regular cache access and the miss prediction are tasks having the different priority. However, the miss prediction occurs based only on the hit ratio. Therefore, RYAN neither teaches nor suggests the second element or the corresponding executing steps of the present invention.

BALA also fails to teach or suggest the second element and the executing steps of the present invention, because BALA merely discloses variable threshold based on the calculated cache hit ratio.

Accordingly, the amended claims avoid the rejections under §102 and §103.

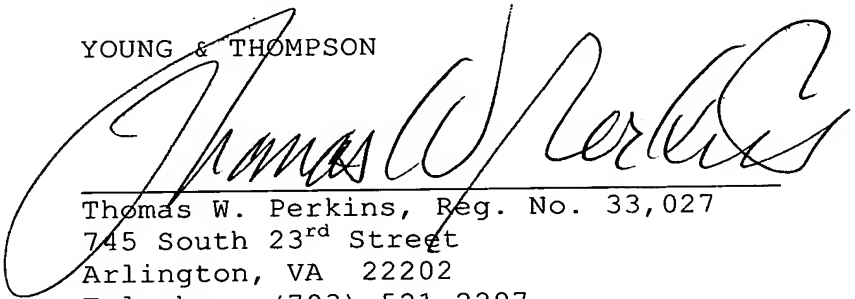
New claims 11-16 have been added and are allowable for the reasons set forth above.

In view of the present amendment and the foregoing remarks, it is believed that the present application has been placed in condition for allowance. Reconsideration and allowance are respectfully requested.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

A large, stylized handwritten signature in black ink, appearing to read 'Thomas W. Perkins', is written over the printed name and address.

Thomas W. Perkins, Reg. No. 33,027
745 South 23rd Street
Arlington, VA 22202
Telephone (703) 521-2297
Telefax (703) 685-0573
(703) 979-4709

TWP/fb